INFLUENCE OF TECHNOLOGICAL INNOVATIONS ON PROJECTS PERFORMANCE OF NON-GOVERNMENTAL ORGANISATIONS IN KENYA: A CASE OF KENYA AIDS NON-GOVERNMANTAL ORGANISATIONS CONSORTIUM

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DECLARATION

I declare that this applied research project is my original work and that it has not been presented in any other University for academic credit

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SUPERVISOR'S DECLARATION

This applied research project is submitted for examination with my approval as the University Supervisor

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DEDICATION

This research is a dedication to my God who is my creator for granting me this juncture in my academic journey. I am also, dedicating it to my lovely parents and wonderful siblings.

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ABSTRACT

HIV has been an epidemic that has taken a toll on our communities and our country in general. There are 1.6 Million people in Kenya living with AIDS. This has led to the loss of lives amounting to 36,000 AIDS related deaths in 2016 and not to mention 62,000 new infections in the same year. General productivity of the country has also dwindled (WHO, 2019) because many are sick from HIV related infections. Kenya Aids Non-governmental consortium as a Non-governmental organization itself has been at the forefront in combating this epidemic (KANCO, 2018). KANCO as a membership company was started in Kenya and is operating in the Eastern Africa region. Its membership consists of other Community Based Organizations (CBOs), Non-Governmental Organizations (NGOs), and Faith Based Organizations (FBOs), Private Sector actors, Research and Learning organs having a focus on health advocacies and implement health programmes. KANCO over the years has implemented and have ongoing key populations programs through various projects that have contributed positively to key populations service uptake as at June 2013. All these projects are measured in scope, time, and quality of delivery as a measure of performance. The study investigated the influences of technological innovations on projects performance of Non-governmental organisations, and in this case, KANCO. The study research objectives focused how Project Management Software can contribute to project collaboration, better scheduling and planning, efficient resource management and project budgeting. It explored how Mobile Communication Networks contribute to remote coverage, increased frequency of communication, variety of data being transmitted and reduced cost of communication. Finally, it explored how Information Databases assist store project data and documents, enable information retrieval, backups and efficient and effective reporting. These were the independent variables of the research. The study explored literature and empirical reviews that will be supported/anchored in theories of Rogers's innovation diffusion theory, systems theory and theory of change to support the topic of influence of technology on projects performance. The study implemented descriptive survey designs and gathering of data was by way of questionnaire. Moreover, the population of research was KANCOs 71 staff who formed the census population. The census included project managers, project members and office managers. The data analysis for this study was done through Statistical Package for Social Scientist (SPSS) and outputs presented in form of frequencies and inferential statistics, notably bivariate correlation. The study findings were that project management software, mobile communication networks and information databases influence the performance of non-governmental organisation projects. NGOs should embrace the use of project management software for easier collaboration, improve on the use of mobile communication networks and use of information databases in their projects. A study should be done on influence of technological innovations on governmental entities as a further area of study.

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LIST OF ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
CPM	Critical Path Method
HIV	Human Immunodeficiency Virus
ICT	Information Communication and technology
ID	Information Databases
KANCO	Kenya Aids Non-Governmental Organisations Consortium
KES	Kenya Shillings
KPIs	Key Performance Indicators
MCN	Mobile Communication Networks
NGOs	Non- Government Organizations
PERT	Program Evaluation and Review technique
PMS	Project Management Software
RBM	Result-Based Monitoring and evaluation
RIDT	Rogers's Innovation Diffusion Theory
ST	Systems Theory
TOC	Theory of Change
UK	United Kingdom
UNDP	United Nations Development Programme
WHO	World Health Organisation

DEFINATION OF TERMS

Evaluation: This is an ongoing, mid-term and final assessment of project effectiveness. It highlights whether the projects are steadily moving to achieve set out goals. (Boyera & Alonso, 2012). KANCO projects can be long and sometimes with many phases.

Information Databases: These are structured set of data stored in computers which are accessible electronically. These kinds of system manage and protect data so that the databases are safe or secure. Data can be easily managed and updated especially in a time bound target based temporary element such as a project. In NGO projects, the information databases have abilities in controlling redundancy, stored information integrity restricting access, date sharing and backing up or recovering information (Chapelier & Shah, 2013).

Information Technology (ICT): ICTs is a general term referring to technology that is used to collect, store, edit and pass on information in many forms. (Carvalho, Patah, & Bido, 2015).

Mobile Communication Networks: These are connections which terminal links are wireless. The network is run over land areas referred as cells each serving a minimum of one location fixed-transceiver, but usually three sites cell or base transceiver stations (Chapelier & Shah, 2013).

Non-Governmental Organisations (NGOs): These are nonprofit organs working locally in improving residents' life. The focus is building equality within society environment, health care, quality of education, technology access, space access and information for the disabled (Nguyen & Watanabe, 2017).

Project Collaboration: This is a method by which teams and team leaders plan, coordinate, control and monitor the project they are working on (Chapelier and Shah 2013).

Project Management Software (PMS): This is the technology that having capacities in managing, planning and organizing resource tools and help develop resource estimates (Chapelier & Shah, 2013).

Project Performance: This is the degree of achievement of a project goal within the stipulated project period and budget (Chapelier & Shah, 2013) and in this case KANCOs projects.

Project Resource Management: The resources of a project consist of people, materials, equipment and knowledge and time. Organizations typically have limited resources especially NGO; therefore, tradeoffs on what project resources are expended and when are made every day within organizations. Project resource mangement ensures that resources required for the project are available when needed (UNDP, 2010).

Project Scheduling: This is a mechanism to communicate what tasks need to get done and which organizational resources will be allocated to complete those tasks in what timeframe. Items like a project plan document are produced documenting what work is needed to deliver the project on time (Kumar, 2002).

Technological Innovations: These are the new service and products liked to new science or knowledge derived from research and development put to practical use to solve problems or invent useful tools (Chapelier & Shah, 2013).

CHAPTER ONE: INTRODUCTION AND BACKGROUND OF THE STUDY

1.1 Introduction

Kenya Aids NGOs Consortium (KANCO) is well known as the champion of harm reduction in the country and in the eastern Africa Region (KANCO, 2018). In year 2016, KANCO expand its harm reduction work in the country and supporting more civil society organizations to participate in making the dream of ensuring people who live with HIV can access health services without the fear of prejudice and discrimination (KANCO, 2018). This chapter presented the introduction of the influence of technological innovations on projects performance. It also contains the statement problem, research objectives, research questions, research significances, delimitations, scope, limitations, and conceptual framework.

1.2 Background of the Study

In South Africa, Mimbi and Bankole (2015) indicates that use of technology in the health system, to invest in technological platforms; countries can gradually increase life expectancy during birth and decrease infant mortality rate. To improve health care services, investing in health systems is vital to compliment ICT investments. The target for Kenya is to be changing to a newly industrialized country by 2030. If the nation is to attain this leap, non-governmental organizations are deemed to play critical roles in the transformations. The fundamental objective of the initiatives should be to make ICT more inclusive. This means that all citizens, specifically those that are economically and socially marginalized, to gain access, knowledge, opportunities and power associated with new technologies (Shukla & Sen, 2013).

Kundishora, Phil and Fzas (2018) reaffirmed that technologies are crosscutting and enabling growth and development of optimal benefit. Communities and nations should establish the right policies' interventions, investing in resources, use appropriate partnerships or networks and provide enabling environment. International humanitarian organisations are helping local aid agencies in seizing the benefits on ICT and using them in accelerating their economic development. It is fact that developments from other commercial entities that ICT contributes immensely to the performance of projects of an organisation and that ICT act as an enabler resulting in improving market competitiveness of those organisations' products/services. ICT has a positive impact on governance and other areas of the economy which in this case is projects performance. ICT can effectively assist in economic integrations, improving living standards, narrowing the digital divide, and improving biodiversity usage and management in non-governmental organisations.

The integration of ICT into projects is considered of great importance and greatly improves the performance of those projects. Cooke-Davies (2002) points out that average performances against budget is (four (4) percent escalation in cost) which is ordinarily better than average performances against scheduling (is sixteen (16) percent late) in an NGO project performance indicator. NGOs have popularly become the important target groups to implement development projects in the grass root level to meets people's requirements which means just like the commercial entities there is a need to ensure their projects performance are optimized. In these commercial organisations, successful projects improving time to market, enhancing one's competitiveness position, and increasing product margins/sales (Kerzner, 2000). Therefore, following in those footsteps, there is a

need to increase the overall quality of the delivery as we work towards sustainable solutions.

1.2.1 KANCO Overview

HIV has been an epidemic that has crippled the communities and the country in general. There are 1.5 Million people in Kenya living with AIDS. This has led to the loss of lives amounting to 28,000 AIDS related deaths in 2017 and 53,000 new infections in the same year. General productivity of the country has also dwindled because many are sick form infections that are associated with HIV. This means there is a prevalence of 4.8% for HIV in Kenyan adults (AVERT, 2017).

Kenya AIDS NGOs Consortium is a membership network of FBOs, CBOs, NGOs, Private Sector actors, Research and learning entities involved and having interest in HIV and AIDS (KANCO, 2018). KANCO is the consortium that links 741 organizations that have an interest in HIV and AIDS.

These organisations are involved in projects and these projects need to be cost effective, timely and delivering quality products. A study was necessary to determine the success level of ongoing and future projects of KANCO Organisation. ICT plays a big role in ensuring that processes are smooth, efficient, accurate and verifiable. There are benefits of assessing how technological innovations influence the performance of the projects of these organizations. In this case KANCO organisation.

This research was investigating how technological innovations contributes to organizational project performance showing how they affect the scope, quality of the project, resource utilization and cost.

1.3 Statement of the Problem

NGOs should aim to utilize technological innovations to manage, measure and identify concerns in community projects and project processes. This is because according to Raftree (2013), technological innovation helps utilize well the resources that include time, human and money needed to design, collect and analyze data and more so in project management processes. To measure NGO projects performance which are seen by tangible and intangible results, outcome and impact of the projects then technological innovation plays a very integral role in the management of this. Technological innovations infused in Project planning, project design, project implementation and project monitoring and control can give KANCO that extra edge to deliver quality project products and services.

A significant challenge, specifically for NGOs is having limited experiences and capacity with project technology and data management. There is little advocacy of which technology to include in their projects. Some of the technological innovations are costly and they can only be afforded by commercial entities that have large budgets and can justify them using profits. There are limited resources from donors to help acquire these costly technologies (Mimbi & Bankole, 2015). Further to this, some donors do not set aside provision for technological acquisition when budgeting for projects hence the project resources are only utilized for the items which the donor deems of interest enough for the given project. According to Kundishora et al. (2018) without technological innovations, projects are bound to be ineffective, inefficient, unable to educate future projects and loss of donor and public funding. Organizations specifically this NGO face challenges like luck of funding, access to the latest technology advocacy and human capacity to implement these systems. There is a risk that the lessons learnt will be underutilized by future projects

since there are no linkages to each other technologically. In the context of KANCO as an NGO, quality and rich project results will lead to better ways of combating HIV and AIDS epidemic in the country.

1.4 Objectives of the Study

The study was guided by both general and specific objectives.

1.4.1 General Objective

The general objective of the study was to assess the influence of technological innovations on projects performance in NGOs in Kenya.

1.4.2 Specific Objectives

These were the specific objectives of the research study.

i) To determine the influence of project management software on projects performance in NGOs in Kenya.

ii) To establish the influence of mobile communication networks on project performance in NGOs in Kenya.

iii) To find out the influence of information databases on projects performance in NGOs in Kenya.

1.5 Research Questions

The research questions that the study asked were.

i) What is the influence of project management software on projects performance in NGOs in Kenya?

ii) How does mobile communication networks influence projects performance of NGOs in Kenya?

iii) What is the influence of information databases on projects performance of NGOs in Kenya?

1.6 Significance of the Study

1.6.1 Non-Governmental Organisations

It was hoped that the study was of significance to NGOs across the country and probably in the world to contribute to a greater understanding and acknowledge the benefits of strengthening their project management activities and overall projects performance using technological innovations.

1.6.2 Project Managers

Project managers in NGOs can benefit immensely from this study when they see how greatly technology can contribute to a more rigorous, with higher quality product and within cost and timely projects.

1.6.3 Government

From this study, government officers through Ministry of Health tasked with project planning and national development through HIV/AIDS docket will be able to help NGOs design and modify tools that can easily assimilate technology once they see how ICT contributes to Project Performance.

1.6.4 National Agencies

National Aids Control Council while mainstreaming disability agenda and managing the HIV/AIDS response will benefit from the study by seeing how technological innovations benefits project performance of NGOs.

1.6.5 Communities

Communities at the center of these NGOs will benefit greatly when the projects are more successful when they utilize the study to put ICT controls and checks in their projects.

1.6.6 Researchers

It was hoped the study will add value to researchers and scholars who may use its findings as a reference and to enrich project literature.

1.7 Scope of the Study

The scope of this research was about the influence of technological innovations on projects performance of KANCO. The study covered a period of three years from January 2015 to December 2017 through the cross section of the KANCO projects.

In July 2017, The US, President Emergency Plan for AIDS Relief, (PEPFAR) granted KSH 10 million to ten Kenyan non-governmental organizations as part of its Community Grants Program. The PEPFAR Community Grants Program's mission assists communities with projects that promote prevention, caring and supporting those infected/affected by HIV. It would be very interesting to see if there have been technological efforts in the use of these grants. If the ICT is being utilized, how then is it contributing to performance of the projects being undertaken? These project outputs can be used to address the next call of proposals in the future.

1.8 Limitation of the Study

The primary method used were questionnaires and interviews to fill the questionnaires. Some of the employees of KANCO were out of the capital city and in remote areas. These were areas that were challenging to reach and at this point the researcher was forced to use other means of communication, such as emails and telephone conversations. The study did

not cover the reasons why technology is not integrated into projects and the challenges of the same. This can be covered in other study. Where the study performed qualitative study on technological innovations, the findings could be subject to other interpretations. Some of the respondents were reluctant to give information because of fear of being victimized by the management of the organization. This countered by the researcher assuring the respondents on information given is confidential and used only for research and academia studies.

1.9 Delimitation of the Study

The study covered only the KANCO organization in Kenya. The research sample was composed of about 71 employees. The study aimed at looking at the technological innovations of the projects and no other areas of the project where or the organisation's daily operating procedures.

This study/research explored purposive or convenience sampling where gender was equally represented among the respondents that were applied from KANCO. The study also confined itself to questioning each employee as one unit of measure for the study.

1.10 Conceptual Framework

The conceptual framework had independent variables will be the influence of project management software, the influence of mobile communication network and influence of information databases. In addition, the dependent variable is project performances of organization as presented in figure 1.1.

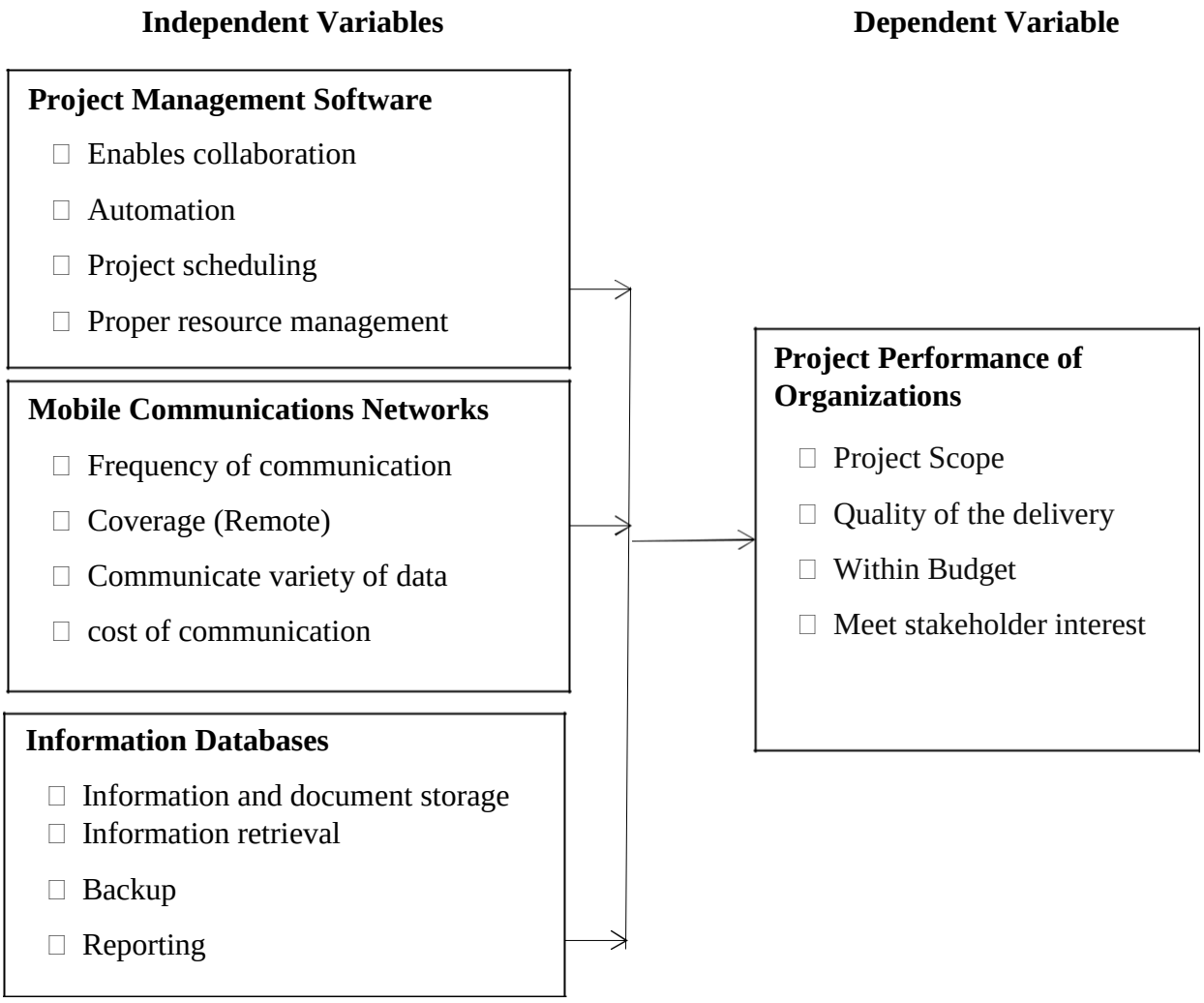

Figure 1.1 Conceptual Framework

Source: The Researcher

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

The literature review provides an overview of the theories that support the influence of technological innovations on projects performance. In doing so, it overviews the dynamics of managing projects in today's global marketplace and the challenges in using technology to practice project management. It reviews the literature looking at how technology and its innovation affect project performance. This approach is adopted in line with current practice in grounded research work. According to Easterby-Smith, Thorpe, & Lowe, (2002), it is now regarded as acceptable for the researcher to familiarize himself with existing research prior to collecting his own data. In addition, the findings from these other studies on the variable will be identified. Finally, the chapter will summarize the literature reviews and formulate the research gaps.

2.2 Theoretical Review

The Rogers's innovation diffusion theory, Systems Theory and theory of change were used as the explanation of the study.

2.2.1 Rogers's Innovation Diffusion Theory

Rogers (1983) who founded the theory considers the procedure of innovation diffusion as one that is dictated by uncertainties reduction behavior amongst probable adopters in the introduction of technology innovation. Though innovation offer new ways of tackling problems, the uncertainties of whether the new innovations will be superior/greater to existing ones becomes a hinderance to adopting process and project process to realise project performance. To counter these uncertainties, potential/probable adopters are motivated in seeking additional information, specifically from their workplace cohorts

(Niederman, Brancheau & Wetherbe, 1991). Technology innovation take long from their availability up to when they are adopted, the shared problem amongst individuals and entities are the rate of speed in diffusion of technology innovations and use it to monitor project performance (Rogers, 1983). According to Sahin (2006) there are four key characteristics/attributes of innovation that consistently influences adopting of new technologies; relative advantages, which are the degrees to which a technologies are perceived to be better/greater that the ideas they supersedes; compatibilities, are the degrees to which technologies are perceived being dependable with past experiences existing values, and requirements of potential adopters; complexities are the degrees to which technologies are perceived as hard/difficult in understanding and using; and trial abilities, which are the extent to which an innovations are experimented on limited basis. Moreover, Moore and Benbasat (1991) adds that image and visibility are also key features of innovation that determine the diffusion rate. Images are the self-perception that to adopt an innovation outcome could enhance social status for individuals/persons amongst the peers. Visibilities on the other hand are the degrees to which probable users see innovations as being visible in adopting context.

There are various reasons why an organization chooses to invest in project management Software. These reasons include making the work of a project manager more efficient and easier, to provide applications to aid in plan, managing of costs in project, tracking activities and monitor project schedules (Marti & O'Brien, 2005). However, Davis et al. (1989) advises the benefits derived from using of information technology can be under rated by user's reluctance in accepting and using new technologies available. PMS benefits are only realized if the probable users utilize the system in a manner that will enable

successful project completion and hence contribute to the operational and strategic objectives of the organization. The innovation diffusion theory addresses the first research question which asked to what extent to which use of project management software in project management influences successful project performance.

2.2.2 Systems Theory

According to Cristina & Francesco (2010), the systems theory was established by Ludwig, Anatol Rapoport and Ralph. The theory depicts a method to organize the interaction among component parts/sections of a larger organism, the theory alludes that in organizing information rather than explaining observations (Boulding, 2004). A system is an organized totally containing of numerous components interacting in a manner distinct from their interactions with other entities and lasting over a given period for instance, influence of technological innovations to achieve project performance. According to Brandell (2010) systems theory helps in understanding the component and dynamic of client systems to help in interpreting problems and developing balanced intervention strategy between individuals/persons and their environments are maintained. According to Tao and Tan (2013) the behavior of definite complex systems depends on interaction of components and they relation to each other. This helping to understand fundamental structure of numerous systems that apply same underlying issues (Groves, 2013). In project the principle factor is same for project manager, funding agency, project team, consumer, budget time, and communication practice. The way this factor relate with each other makes a project to be unique dynamically. Kishore, Abraham and Sinfield (2011) state that the individuals/persons taking part in a project appreciate that impacts to take longer time to be clearly noted and mainly small causes greatly influences the people and projects

themselves, for example technological innovations. Human issues/factors like motivation of project team and the stakeholders' satisfaction are all key factors or attributes in these phenomena.

Lack of communication leads in disagreeing and slowing collapse of the projects. Even though heavier weight is laid to control technical projects' hitches, the real causes of project malfunctions are majorly because of information issues and human. Therefore, if technology can help manage these two, then the project has a better chance of success. Considering general complex projects, majority of the rules describing any complex system is relevant to project (Kishore et al., 2011). Haslett and Sankaran (2009) state that project managers are involving complex systems defined by various stakeholders, multiple interdependencies, nonlinearities, and feedback systems. Mostly nonlinearities are often unexpected changes in the project scope, dismissal of critical project members or ending of project funding arrangements; interdependency is the relationships between project team, clients, stakeholders, contractors and suppliers. The feedback system involves progress updates, rework cycles, and performance reviews (Haslett & Sankaran, 2009). Communication involves transmitting of information and general understanding from one individual to another or to many others (Keyton, 2011). This definition shows that unless the sending and receiving parties have a common understanding of the information shared, then there is no effective communication. According to Lunenburg (2010) communication involves various elements which include the sender, who is the person initiating the communication.

The sender encodes the information which is intended to be share into a certain format using words, symbolically or using gestures. The second element is the message which is

the outcome of the encoding which is in either verbal, non-verbal or written form. The messages are then sent through a channel or medium that is the third element. These mediums can either be a face to face communication, email, telephone call, social media platform or radio. The receiver is the fourth element and is the individuals who receive the message and decode it to meaningful information. Feedback as the fifth element is a response from the receiver to the sender regarding the received message. Noise involves anything distorting the message leading to lack of a common understanding between the sender and receiver (Lunenburg, 2010). Keyton (2011) concludes that the elements of communication in determining the quality of communication and a difficulty in any of these elements reduces the effectiveness of the communication.

2.2.3 Theory of Change

Theories of change (TOCs) found its' way in 1995 and was used by (Anderson, 2004). The theory is mostly used to evaluate design. These are difficulties to developing and updating in a participatory manner when there are multiple stakeholders who are geographical dispersed in locations. Although TOC is quickly becoming outdated or don't have mechanisms to incorporating new information to change contexts, it can still be used in examining why technological innovation is vital in project performance and how projects can be influenced through information databases. TOCs make it probable to constant testing and revising the conventions built into the theory and the assumed links between various levels of the theory. Majority of NGO projects don't have the capacities to constant update the TOC and, thus become outdated, they flop in making their potential contribution to implement and interpret the evaluation hence, technology innovations (Funnell & Rogers, 2011).

A well-built TOC gives guidance on the information to gather specifically from project process and interpretation. A TOC enunciates the procedures and mechanisms by which program inputs are changed into outputs and then generate outcomes and goals or impacts. The TOC explains the social, economic, socio-cultural, political, and environmental contextual factors/attributes affecting program outcomes and helps define the kinds of data that must be collected on each input, output and results indicator. For project management systems collecting data digitally or using technology innovation on project performance, a TOC helps avoiding the tendencies in focusing on the categories of data easy to gather digitally (Funnell & Rogers, 2011).

Funnell and Rogers (2011) noted that innovations facilitate the gathering of data needed in populating and using a TOC in many ways. For example, information databases or PMS allowing data input into the TOC from multiple sources, like the project planning systems, records from other agencies. Integrating database facilitates the gathering of contextual data that include changes and differences the technologies are introducing that affects the project performance.

2.3 Empirical Review

The following variables findings were indicated to describe influence of technological innovations on projects performance.

2.3.1 Influence of Project Management Software

Stallman and Greene (2014) study found that software make it easier in collecting certain kind of data in a cheap way, there is a potential that the technologies, rather than the project designs or data required, will influence the types of data that are gathered enhancing the project performance. Trigg (2013) found that when using innovation for big data depends

on automating, that is quantitative data is likely to be gathered. Some software and procedures have been made in helping to gather large-scale qualitative data, like videos tagging, stories and narratives, and using critical words in sorting and organizing responses that influencing the project performance.

PMS like Wrike are being utilized in helping to bring project team members up to speed with the external environment changes and addressing some of the actual world and methodological hinderances hence, influencing the project performance. Chapelier and Shah (2013) discovered that project teams experiment with innovations by including the voices of participants/beneficiaries of development programs, to allow them weigh in on what success appear to be like and through collaboration thus, making it possibly a more realistic in evaluation of whether success has been achieved in projects. Stallman and Greene (2014) study indicated that project teams use technological innovations to improving efficiency and quality of data, hence, reducing sample bias by constructing the sample frame, to reach vulnerable and difficult to reaching groups that are mostly under represented and to improve quality control and hence, project performance.

Boyera and Alonso (2012) study found that collecting a wider perspective from a broad network in learning to experiment through outcome testing, set up and learn from lessons and have the ability in capturing the value of both successes and failures have been identified as vital elements of organizations with strong capacities to innovate. Technology can play a role in facilitating these capacities within entities. While there are certainly cases where traditional project scheduling and planning are most appropriate, with innovations there are new benefits to be realized. An investment in developing, applying and evaluating of innovative new software which include creative uses of technology helps organizations

in adapting their approaches throughout the entire project cycle, to make more flexible and adjusting to the complex environments in which developing initiatives take place. Trigg (2013) in his research found the new software and technologies devices and tools developed give rise to new approaches to project management hence influence project performance. Shukla and Sen (2014) discovered that technology integration to different project planning methodologies and scheduling help project managers efficiently manage and improve these project processes.

Lamb (2013) study discovered that large data sets and improved resource allocation capacities are allowing project managers in identifying formerly unseen patterns/trends that need further investigation to enhance project performance using PMS. Aside from managing the team, to manage project resources are important to ensuring proper operation so as not to waste stakeholders' inputs. Knowing the resources, one will utilize in a project allows the project manager work on it without difficulties caused by a missing tool or equipment. It is a feature outlining the resources that will be utilized and when they'll be used. It calculates the cost of usage it.

Raftree and Bamberger (2014) discovered that innovation is wider involvement in consulting and decision-making procedures about project itself. Dispersed managing teams and implementing teams are required in any development in a project that extends beyond a local site. Thus, each project is associated with a cost that is included in the budget along with contingency. The study indicated that tools like skype and GoToMeeting, offer cheap voice calls, conferencing calls and screen sharing, Dropbox, and Google Drive allow large files sharing, and Trello, is a free task managing application helping teams in coordinating and broadening participation in the stages of planning and managing project budgets. These

tools supporting greater voice and engaging people and organizations dispersed across sites, nations and regions thus, project directions and decision-making in budget is not centralized in one place.

2.3.2 Influence of Mobile Communication Networks

Letouzé (2014) study invested the use of innovations on the growing capacity to collect data and increasing frequency of communication relating to people's actions and behaviors prompting efforts in harnessing data used in predicting and tracking behaviors and planning interventions in a speedier manner than previously possible. In the past, by the time a full-scale diagnosis of a challenges was done it becomes late for effective response or the data becomes outdated. Yu et al. (2009) discovered that mobile data collection is most known use of ICT in project processes. In addition, the study found that it is free from errors and data entry, validation and cleaning can be done to enhance data collection process. In support, Boyera and Alonso 2012) indicated that project managers found that data collected from mobile phones from their study in India is effective hence, influencing project performance.

A study conducted in Vietnam on data gathering tool in monitoring forest management with the adopting of remote sensor monitoring of forest disturbances. It found that between fourteen (14) and thirty-six (36) percent of the events identified through local community people were not detected by remote sensors and that, in some cases, remote sensors indicated a delay of 1 to 2 years in events capturing. The role of remote mobile data gathered by community members was highlighted as important to ongoing forest managing and monitoring (Pratihast et al., 2012). Another, study done in Kenya utilizing mobile in Busara center for Behavioral Economics, a laboratory research in Nairobi, used Frontlines

SMS to sending bulk text messages to participants/clients who signed for participating in research to remind them of their appointments. instead of making 150 to 200 individual/people calls a day, a process that usually taking two field officers a full day in completing, with one field officer requiring only 30 minutes to sending out the initial invitation to participants as well as a reminder closer to the date (Kuruvilla, 2013). Demombynes et al. (2013) found that collecting data by mobile phones has given to survey participants a more potential approach. It was tested in 2011 as a portion of an experimental phone surveying project done by the World Bank in Southern Sudan. In this pilot, 1,000 households/people in ten (10) state capitals of Southern Sudan were issued mobile phones.

Mobile communication networks can be used to improve project performance by offering file sharing on the go, document collaboration, and many different apps and software that allow project managers and project members access to project information anytime. There are also many additional options, like platforms to track stakeholders and resources. Mobile communication networks can be used to organize project tasks and who they are assigned.

In addition, Funnell and Rogers (2011) found that the increase importance of complex projects and the hinderances of their organisation increasing interest in new and broader applications of case studies. Case studies have traditionally been viewed as a qualitative approaching that uses a moderately small number of cases to show the different typologies produced in quantitative research. For example, each member of each element affects the project-related results in its own distinct manner. in addition, the interaction among all members also influence the results. Cases also interact with other elements of the system being studied. Byrne (2009) investigated that technology should be integrated in project processes to enhance the organisation of project that will contribute to project performance.

The competitive mobile communications market has new players constantly entering the field, driving down subscriber rates. This is helping reduce the cost of project communication and hence increasing project performance. According to Kits (2008), this reduction has made miraculous technologies come to seem ordinary and even necessary, especially mobile networks. According to Corici (2014), mobile networks have increased their support for data exchange with different applications. This include applications translated from fixed communication and applications especially designed for mobile.

2.3.3 Influence of Information Databases

Kumar (2002) found that projects use reconstructing baseline data under common projects' scenarios, it is usually the case that no baseline data was gathered, to make it difficult in applying pre-test-post-test project designs. The tools and techniques used are review secondary data available, asking respondents in recalling the circumstances at the time the project began, conducting vital informant interviews, to hold focus groups and use participatory group consultation methods. There is a great need for storage of all this data and applications providing ability of storage of these data types is important. Numeric, alphabetic, audio and videos files need a way to be stored and technological innovations are providing different ways of doing this.

Information databases are being used to increase information retrieval throughout the project cycles from planning, through design and implementing, evaluating and the dissemination of project knowledge. Much data is collected and stored throughout the whole project. This data is supposed to be easily mined and presented to map out patterns of the project. Data retrieval is vital to help stay within the timelines of the project. This is further facilitated if the databases are online and accessible by all project members. Latest

information databases are coming up with the latest ways of backup. This include online and offline backups. Backups secure against information loss of a project and hence ensure project performance.

Forss et al. (2011) investigated the process of complex programs which is a hastily emerging topic in development of projects. Complex projects involve frequently multiple funding and implementing agencies, multiple components, multiple results and multiple casual paths. All these items depend on well-articulated reporting methods from a centralized database (Groves, 2013), that has been used in the projects of the Zambia Antiretroviral Treatment (ART) strategy for addressing HIV/AIDs. This method pronounces the interrelation with the project performance.

2.3.4 Project Performance

Mbogo (2016) found that a well performing project is one that achieves deliverables that are prior agreed upon to satisfy the project customer. Krzysztof, Potkańsk, and Stanisław, (2011) discovered that project M&E are key in planning how a project should be done at planning point. While a few contend that it should be done or created after the planning stage but, before the design stage of a project or intervention, technology innovation can offer substantive benefits to this. Nyonje, Ndunge and Mulwa (2012) found that in study of qualities of projects that are deemed to have perfomed well, is when all the stakeholders interest are met (Tonea, 2013).

Pillai, Joshi and Rao (2002) found that two models or paradigm developed to measure project performance are the Integrated Performance Index and Key Performance Indicators. The Integrated Performance Index was invented or developed by Pillai et al. (2002) in measuring the performance of R&D projects, while Key Performance Indicators

(KPIs) used in construction industries in UK measure project performance basing on ten (10) identified parameters. These parameters contain of seven (7) project performance indicators (construction time, construction costs, cost predictabilities that is designs, defects, client satisfaction with the product and client satisfaction with the service) and three (3) company performance indicators which are profitability, safety, and productivity, (Nguyen & Watanabe, 2017). The use of such indicators to evaluate project performance is very popular. Many industries use industry-specific KPI systems to measure process performance that is critical to the success of a project. Mir and Pinnington (2014) indicated that notwithstanding their normality or popularity, KPIs indicates to be more appropriate for assessing project performance levels. As a result, in this study, the KPIs are adapted with requiring considering the accessibility of data collection because of the multifaceted project's outcome (Carvalho, Patah, & Bido, 2015)]. This method to determine performance indicators are reasonable approach in assessing the performance quality and success of a project (Sage, Dainty, & Brookes, 2014).

2.4 Summary of Literature Review

Literature above illustrates about technological innovations on projects performance. First, the literature has presented the theories of Rogers's innovation diffusion theory, systems theory and theory of change to support the topic of influence of technological innovations on projects performance. Also, the literature on influence of project management software in terms of collaboration, scheduling and planning, resource and budget management so that the organization can achieve project performance. Further, influence of mobile communication networks to aid in remote communication, increase frequency of communication and reduce cost of communication so that the organization has more

chances of projects performing better. Finally, influence of information databases assists in storage, retrieval, backup and reporting so that organisation can achieve project performance.

2.5 Knowledge Gap

The internet has been existing for only the last 45 years. This is also the case for personal computers and the first laser printer had just been created. Therefore, technology being a relatively new field, there is enormous need to harness its benefits. Integrating technology into projects are costly and requiring staff training, additional equipment and more involved database management. Meller (2013), did a study on the influence of technology on project success, a study of e-commerce companies in Ireland. Mbogo (2016) did a study on factors affecting performance of HIV/AIDS programs in Kenya and determined donors influence and behavior of people living with AIDS. But there is no study done in determining the influence of technological innovations on projects performance to the HIV/AIDS NGOs and seeing how great an epidemic this is, there seemed to be a relevance for this study. The study will therefore to determine the influence of technological innovations in relationship to project performance. The following research question was addressed; what is the influence of technological innovations on project performance at KANCO?

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The chapter addressed design of research, site of the research, population, sample size, sampling procedure/technique, data collecting instruments and research, data analysis techniques/methods, validity, reliability and ethical consideration.

3.2 Research Design

Research design are structures holding all elements in a research or study (Kombo & Delno 2013). The researcher used descriptive design that is a procedure of gathering information through interview or questionnaire to the sample of respondents (Orodho, 2003). Further, it used to collect/gather information on individual's opinions, attitudes and habits. The design provided the researcher the mechanism for collecting data from the respondents on the influence of technological innovations on projects performance.

3.3 Research Site and Rationale

The research site for the study was KANCO offices in Nairobi. This is because it helped provide the necessary site for the study on the influence of technological innovations on projects performance as it is the headquarter.

3.4 Target Population

Mugenda and Mugenda (2003) stated that population contains a group of objects, persons, or items that have same characteristics which provide the sample or census for the study. Also, the total population is the entire field that researcher is interested to study. It is the target of respondents that can be generalized (Johnston & VanderStoep, 2009). Moreover,

Kothari (2008) noted target population is the total number of people that provide the data necessary for achieving research objectives. It consisted of 71 staff/employees of KANCO.

Table 3.1 Population of KANCO employees

Target population	Size
Project Manager	11
Project Member	41
Office Member	19
Total	**71**

Source: KANCO, HR Department (2018).

3.5 Sampling Procedures

Orodho (2003) indicated that this is a study plan indicating how the population was selected. This study/research explored stratified random sample where gender was equally represented among the respondents that were applied from KANCO. This was convenient procedure for identifying the respondents.

3.6 Sample Size

The employees of KANCO are less than a hundred employees, therefore the sample consisted of all the 71 employees.

Table 3.2 Sample Population Breakdown

Categories	Size	Census
Project Manager	11	11
Project Member	41	41
Office Member	19	19
Total	**71**	**71**

Source: The Researcher

The sample consisted of all the staff/employees.

3.7 Data Collection Method

According to Saunders, Lewis and Thornhill (2011), noted that data collection procedures or methods to gather data serving or proving some facts. The study also confined itself to questioning each employee as one unit of measure and all the employees in the organization were involved in the research.

3.8 Research Instruments

The research instrument or tool for the study/research was a questionnaire. The questionnaire contained five-point likert-scale ranging from 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree and 5=Strongly Agree. The questionnaire was made of five parts as Part A: Demographic Background, Part B: Influence of Project Management Software, Part C: Influence of Mobile Communication Networks, Part D: Influence of Information Databases and Part E: Project Performance.

3.8.1 Piloting of Research Instruments

Johnston and VanderStoep (2009) indicates that piloting involves determining whether the research tools are free from errors and are able to gather data necessary for achieving the research objectives. A pilot study was done using ten questionnaires and tested whether it was accurate and free from errors. In addition, it was used to estimate the time taken to fill the questionnaire.

3.8.2 Validity of Findings

Mugenda and Mugenda (2003 indicated that a research tool validation is to prove that the items are representation of characteristics and skills that supposed to measure. It was assured through randomizing that helped in checking the influence of the variables. This

was done through randomly choosing items from the target population to the final census. Randomization is suitable as it is the best technique to ensure that the census is representative of the population,

3.8.3 Reliability of Research Instruments

Saunders et al. (2011) noted that reliability of a study instrument measures consistency to which a test instrument gives the same outputs when given again to same group within different time periods. A Cronbach Alpha was chosen as the best measure of reliability. Cronbach ‘s Alpha coefficient indicates how constructs correlate positively to one it is between 0.1 and 0.9. Salkind (2010) alluded that the minimum acceptable coefficient is 0.60: The following are distribution of the Cronbach‘s Alpha coefficient, alpha coefficient greater than 0.9= excellent, alpha coefficient greater than 0.8= good, alpha coefficient greater than 0.7= acceptable, alpha coefficient greater than 0.6= questionable, alpha coefficient greater than 0.5= poor and alpha coefficient greater than 0.4= unacceptable.

3.9 Data Analysis and Presentation

Salkind (2010) noted that data analysis involves the methods of coding data, entering data and analysis for interpreting information collected as per study objectives. Moreover, it involves statistics used in analyzing data by organizing, interpreting and presenting of collected data. This was aided through using Statistical Package for Social Scientist (SPSS) which is a commonly used computer software for analyses. The analysis of the study also determined whether the data observed the normal distribution. This was captured in the Normal P-P Plot and Normal Q-Q plot. The data outputs consisted both descriptive and inferential statistics. The multiple regression and bivariate correlation were determined. The regression equation involved the following:

$= \quad +_{11}+_{22}+_{33}+$

Where; y = Project Performance of Organizations, x_1 = Influence of project management software, x_2 = Influence of mobile communication networks, x_3 = Influence of information databases and e = error term.

3.9.1 Assumption of the Multiple Regression Model

The regression model assumed that there is a linear relationship between the dependent variable and the independent variables. A scatter plots was used to show whether there is a linear or curvilinear relationship. Also, the multiple regression assumes that the residuals are normally distributed and that the independent variables are not highly correlated with each other (Saunders et al., 2011). This assumption was tested using Variance Inflation Factor (VIF) values. Finally, homoscedasticity that is assumption that the variance of error terms is similar across the values of the independent variables. A plot of standardized residuals versus predicted values was used to show whether points are equally distributed across all values of the independent variables (Salkind, 2010).

3.10 Ethical Consideration

Salkind (2010) noted that it contains norms promoting the objectives of research like knowledge falsification or misrepresentation study data, promoting the truth and avoiding errors. Ethical standards promoting the values that are necessary in achieving collaboration as research involves various parties include accountability, trust, respecting each party mutually and fairness. The ethical issues the research observed was that of acknowledging any piece of work that is borrowed through proper citations. In addition, information

provided was treated confidential. Finally, participation in the study was on the willingness of the respondents.

CHAPTER FOUR: DATA ANALYSIS AND PRESENTATION OF FINDINGS

4.1 Introduction

The chapter will be addressing the analysis of the data that was collected from the questionnaire. In addition, the analyses involved the research objectives and basic information of the respondents. The chapter begins with the identification of the response rate, analysis of the general information, the descriptive analysis and determining the relationships on the variables.

4.1.1 Response Rate

The response rate involved a total of 71 questionnaires which were administered to the project manager, project member and office member. The response was determined and depicted in the table 4.1.

Table 4.1 Response Rate

	Frequency	Percentages
Returned	68	95.8
Unreturned	3	4.2
Total	71	100

Source: The Researcher

Table 4.1 indicates that those questionnaires that were duly filled and received for analysis accounted for 95.8%. This response rate was high for the study and this indicated that the analysis could be done using the above questionnaires.

4.1.2 Reliability Statistics

The Cronbach ‘s Alpha coefficient, alpha coefficient was determined from the constructs of the questionnaires. The results were indicated in table 4.2

Table 4.2 Reliability Statistics

Cronbach's Alpha	N of Items
.827	20

Source: The Researcher

Table 4.2 indicates that a Cronbach ‘s Alpha coefficient, alpha coefficient was 0.827 that indicates it was good for further statistical manipulations

4.1.3 Normal P-P Plot

The analysis of the study also determined whether the data observed the normal distribution. The results were indicated in table 4.

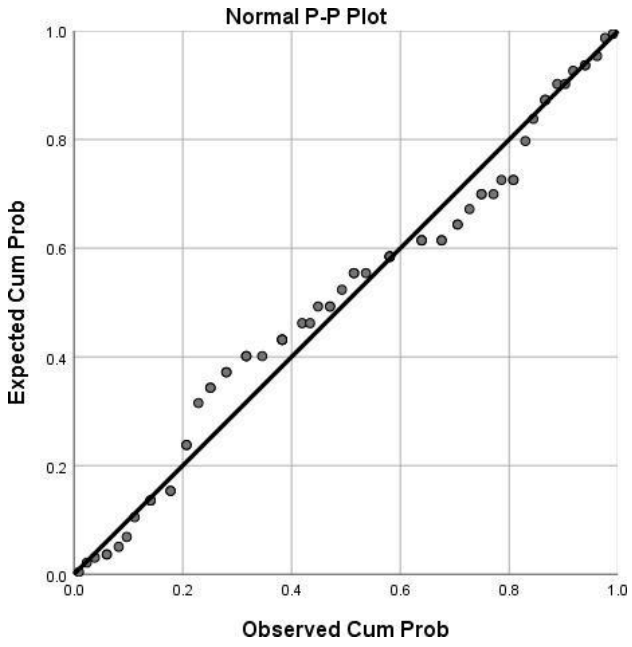

Figure 4.1 Normal P-P Plot

Figure 4.1 indicates that the data observed normal distribution which was confirmed by the detrended normal P-P in figure 4.2

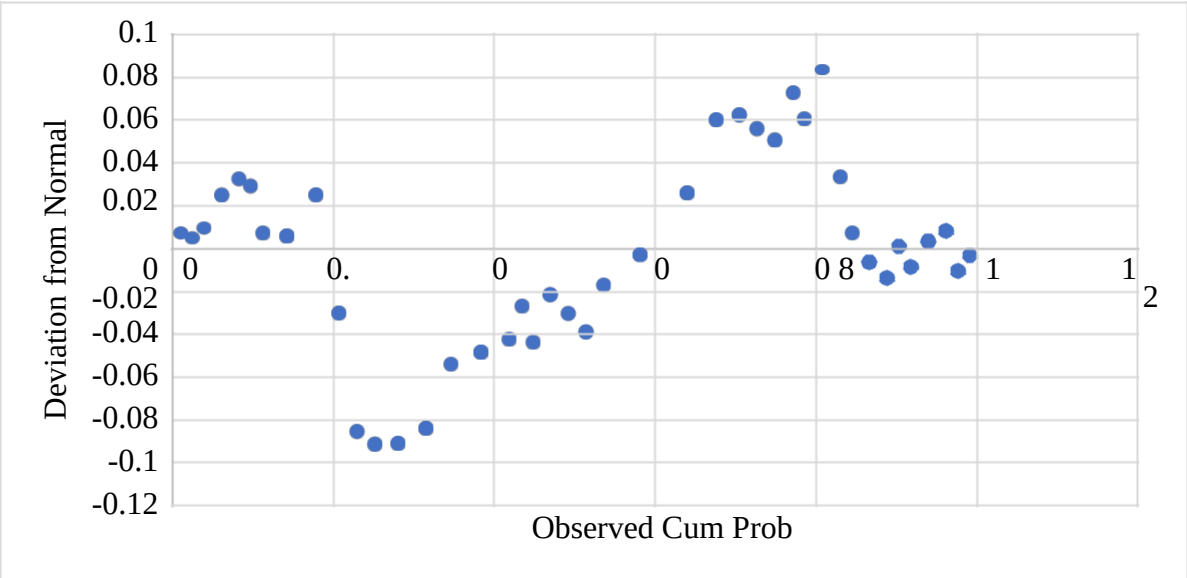

Figure 4.2 Detrended Normal P-P Plot

Source: The Researcher

4.1.4 Normal Q-Q Plot

The quantile-quantile (q-q) plot was determined from the data sets to find out whether it come from populations with a common distribution. The results were indicated in figure 4.3

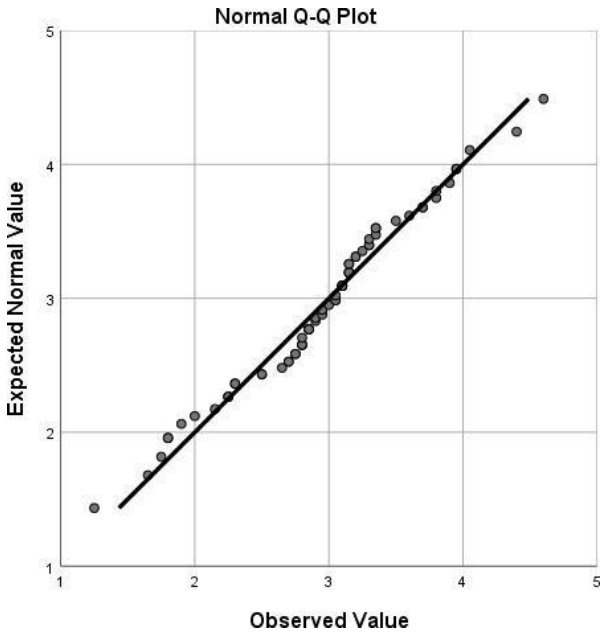

Figure 4.3 Normal Q-Q Plot

Source: The Researcher

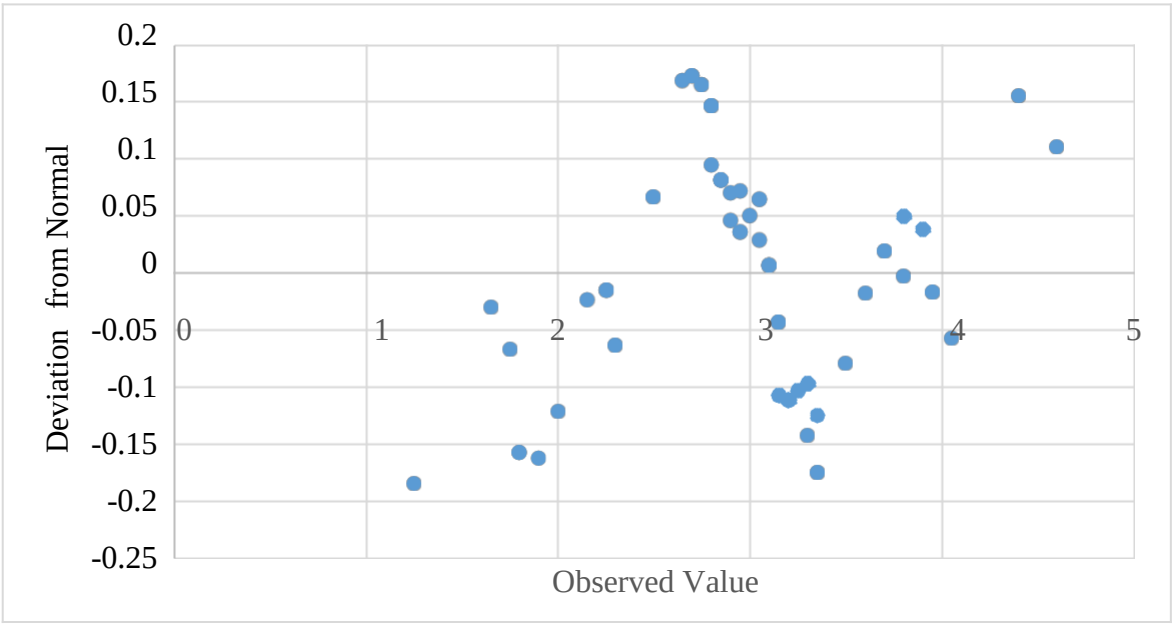

Figure 4.4 Detrended Normal Q-Q Plot

Source: The Researcher

From the figure 4.3 it can be deduced that since the plot are on straight line, they are deemed to be normally distributed.

4.2 General Information

The general information for the study involved the analysis of gender, the position held by the respondents in the organization, number of years the respondents had worked for the organization and the level of education. The analyses were presented in section that follows.

4.2.1 Gender of the Respondents

The study sought to determine whether there was significance of gender on the influence of technological innovations on projects performance. The results were presented on the figure 4.5.

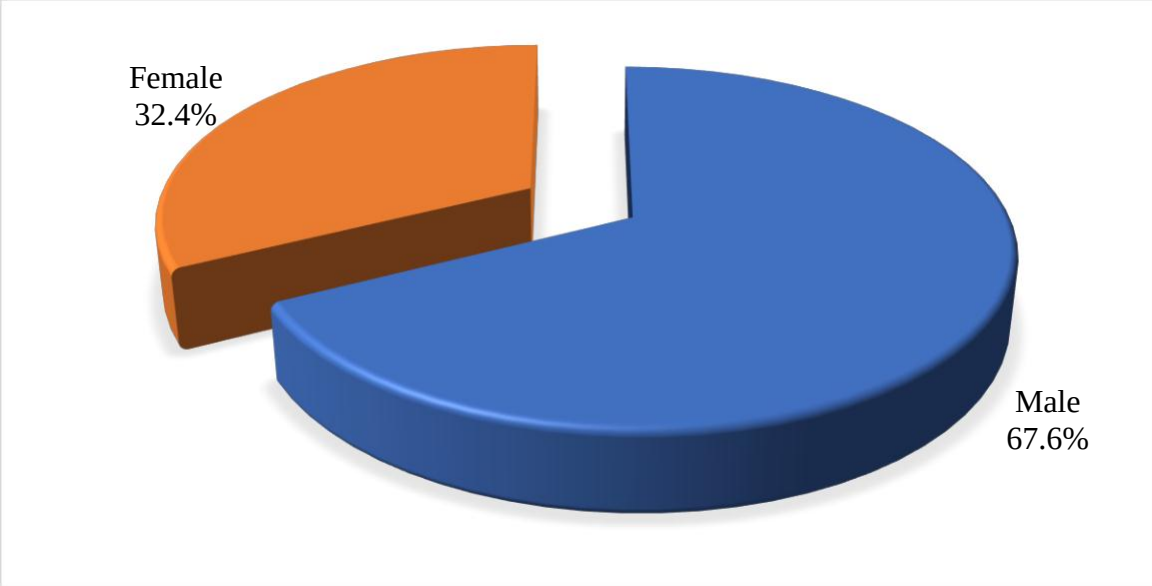

Figure 4.5 Gender of the Respondents

Source: The Researcher

The figure 4.5 indicates that the respondents who were female were represented by 32.4%. In addition, those who were male made most of the respondents who raised their opinion on the influence of technological innovations on projects performance with 67.6%.

4.2.2 Position Held in the Organization

The study sought to determine whether there was significance of position held in the organization on the influence of technological innovations on projects performance. The position held was categorized in three project manager, project member and office member. The results were presented on the figure 4.6.

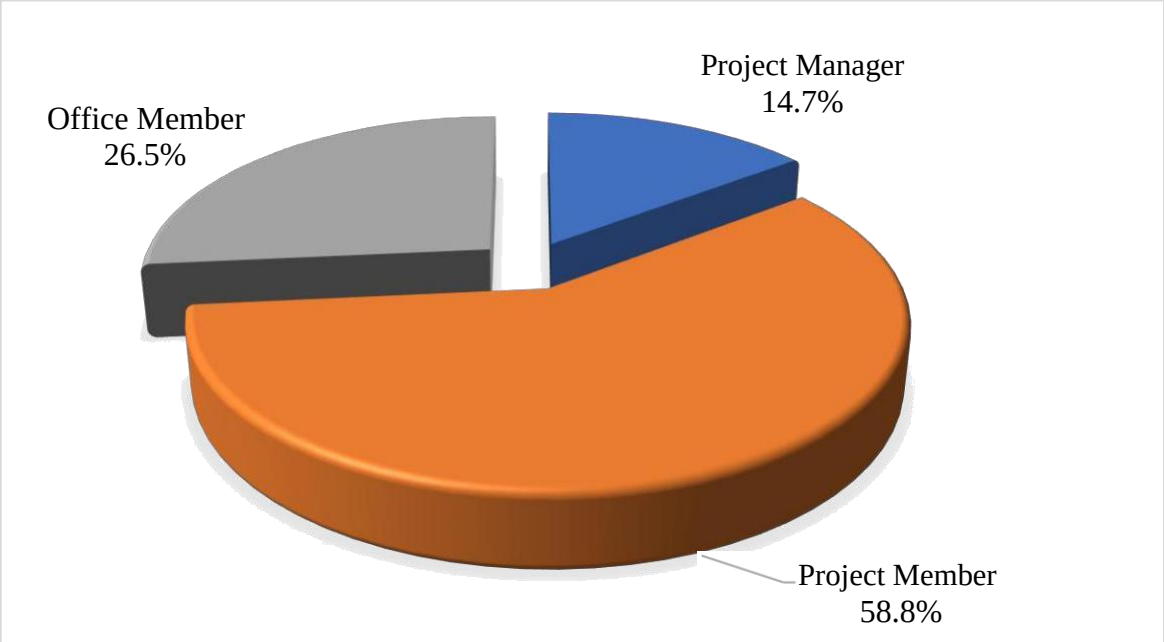

Figure 4.6 Position Held in the Organization

Source: The Researcher

Figure 4.6 indicates that those respondents that they belong to the category of office member accounted for 26.5%. In addition, those who indicated that they were project manager accounted for 14.7%. Further, those respondents who indicated that they were in the project member category accounted for the majority with 58.8%.

4.2.3 Number of Years Worked in the Organization

The study sought to determine the number of years worked in the organization. The year of service in the organization for the respondents were between 1 year to above 10 years. The results were presented on the figure 4.7.

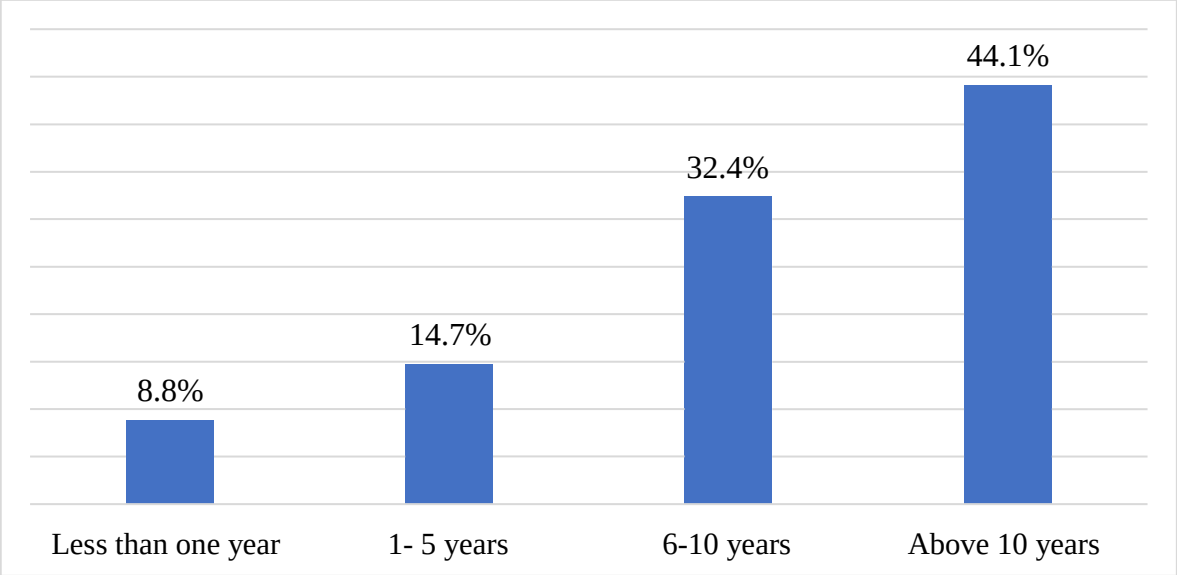

Figure 4.7 Number of Years Worked in the Organization

Source: The Researcher

Figure 4.7 indicate that respondents who participated on the study on influence of technological innovations on project performance and had worked for the organization for less than one year are 8.8%. In addition, those who indicate that they had worked for the organization ranging from 1 year to 5 years are 14.7%. Also, those respondents who have worked for the organization ranging between 6 years and 10 years accounting for 32.4%. Those, who indicated that they had worked for the organization for 10 years and above accounted for 44.1%. It can be noted that majority of the respondents had worked for the organization for more than 10 years accounting for 44.1%.

4.2.4 Education Level in the Organization

The study sought to determine whether there was significance of education level that plays a part in the influence of technological innovations on projects management software on project performance. The education levels were from certificate to doctorate level. The results were presented on the figure 4.4.

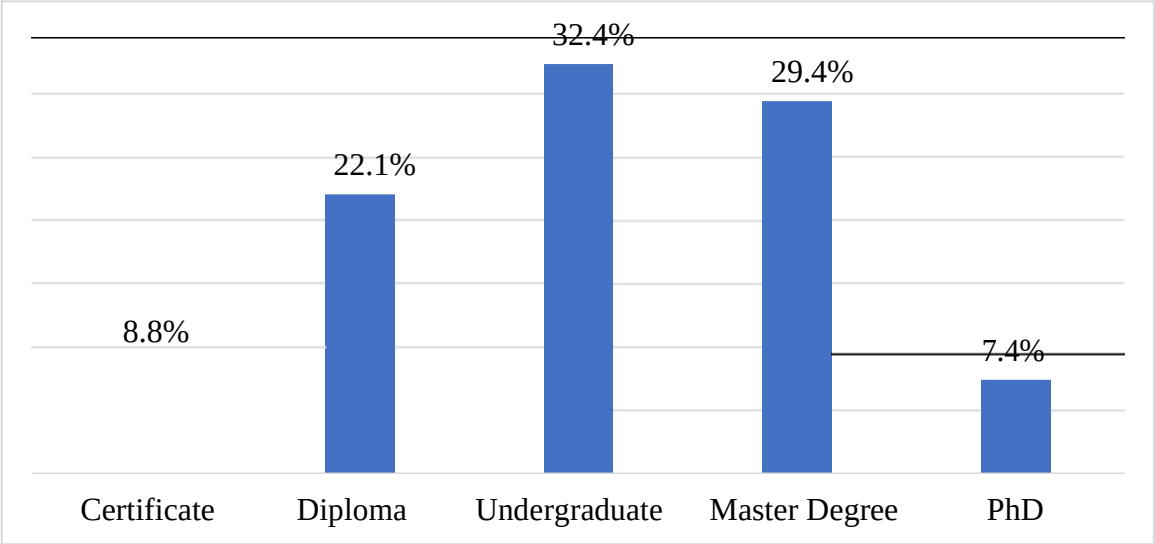

Figure 4.8 Education Level in the Organization

Source: The Researcher

From the figure 4.4 it can be deduced that respondents who had certificate accounted for 8.8%. In addition, those who indicate that they had diploma accounted for 22.1%. Further, those respondents who participated on this study about the influence of project management software on project performance and had undergraduate degree accounted for 32.4%. Also, those respondents who had master's degree education level accounted for 29.4%. Finally, those respondents who had PhD were represented by 7.4%. It can be noted that majority of the respondents had undergraduate degrees with 32.4%

4.3 Influence of Project Management Software on Projects Performance

The study sought to determine whether there was influence of project management software on project performance. The analysis was based on the 5-point Likert scale of 5 – strongly agree, 4 – agree, 3 – neutral, 2 – disagree and 1 – strongly disagree. The results were indicated in the table 4.3.

Table 4.3 Influence of Project Management Software on Projects Performance

	StronglyAgree%	Agree%	Neutral%	Disagree%	StronglyDisagree
PMS makes it easier to collaborate between project managers, project team and stakeholders	19.1	35.3	25.0	17.6	2.9
When using PMS for project planning automation, meaning different tasks are allocated to specific members and perennial reminders dispatched automatically	33.8	30.9	17.6	16.2	1.5
PMS are being utilized in helping to bring project schedules up to speed with the changing project environment and to address some of the real-world, methodological challenges	30.9	25.0	21.1	19.1	4.4
PMS is providing proper resource management helping avoid hitches that are brought about by missing tools and equipment.	42.6	22.1	19.1	13.2	2.9
Each project comes with a cost which is included in a budget along with contingencies. PMS plays a key role in in budget management,	44.1	20.6	19.1	14.7	1.5

Source: The Researcher

Table 4.3 indicates that 2.9% of the respondents strongly disagreed that PMS makes it easier to collaborate between project managers, project team and stakeholders, while 17.6% of the respondents disagreed, 25.0% were neutral, 35.3% of the respondents agreed and those who strongly agreed with 19.1%. The mean is 20%. It can be deduced that majority of the respondents indicated that PMS makes it easier to collaborate between project managers, project team and stakeholders with 54.4%.

Also, respondents who indicated they strongly disagree that when using PMS for project planning automation different tasks are allocated to specific members and perennial reminders dispatched automatically with 1.5%. Those respondents who disagreed with 16.2%, those who were neutral with 17.6%, respondents who agreed accounting for 30.9 and those respondents who strongly agreed with 33.8%. It can be deduced that majority of the respondents believed PMS for project planning automation different tasks are allocated to specific members and perennial reminders dispatched automatically represented by 64.7%.

Further, analysis showed that those respondents who strongly disagree with 4.4% that PMS are being utilized in helping to bring project schedules up to speed with the changing project environment and to address some of the real-world, methodological challenges. 19.1% of the respondents indicated disagreed, those respondents who were neutral with In addition, 2.9% of the respondents indicated that PMS is providing proper resource management helping avoid hitches that are brought about by missing tools and equipment. The rest of the respondents who disagreed, wh2o were neutral, agree and strongly disagree were represented by 13.2%, 19.1%, 22.1% and 42.6% respectively. It can be deduced that majority of the respondents indicated that PMS is providing proper resource management helping avoid hitches that are brought about by missing tools and equipment with 64.7%.

21.1%, respondents who agreed with 25.0% and those who strongly disagreed with 30.9%. Most of the respondents rated that PMS are being utilized in helping to bring project schedules up to speed with the changing project environment and to address some of the real-world, methodological challenges with 55.9%.

The analysis on whether each project comes with a cost which is included in a budget along with contingencies that is PMS plays a key role in in budget management with those who strongly disagreed with 1.5%. Those respondents who indicated that they disagreed (14.7%), those who were neutral (19.1%), those who agreed (20.6%) and those who strongly disagreed (44.1%). It can be deduced that 64.7% who were majority of the respondents indicated that each project comes with a cost which is included in a budget along with contingencies that is PMS plays a key role in in budget management.

4.4 Influence of Mobile Communication Networks on Projects Performance

The study sought to determine whether there was influence of mobile communication networks on project performance. The analysis was based on the 5-point Likert scale of 5 – strongly agree, 4 – agree, 3 – neutral, 2 – disagree and 1 – strongly disagree. The results were indicated in the table 4.4.

Table 4.4 Influence of Mobile Communication Networks on Projects Performance

	Strongly Agree%	Agree%	Neutral%	Disagree%	StronglyDisagree%
Mobile communication networks have enabled more capacity to collect data and increasing frequency of communication than previously possible in a project.	32.4	22.1	20.6	16.2	8.8
Mobile communication networks have played a huge role in collecting remote mobile network data by community members and other stakeholders involved in a project.	33.8	30.9	17.6	14.7	2.9
Mobile communications networks assist in communicating different and varying data types. Like images, videos and geographical information.	32.4	30.9	26.5	4.4	5.9
Mobile communication networks are reducing cost of communication for projects hence assisting project performance	33.8	26.5	19.1	16.2	4.4
Mobile communication networks are reducing the rate of errors in communication by providing varying ways of communicating.	42.6	36.7	14.7	4.4	1.5

Source: The Researcher

From table 4.4, it indicates that 8.8% of the respondents rated strongly disagreed that mobile communication networks have enabled more capacity to collect data and increasing frequency of communication than previously possible in a project. Those respondents who indicated disagree (16.2%), those who were neutral (20.6%), those that agreed (22.1%) and those that strongly disagreed (32.4%). It can be deduced that majority of the respondents 54.5% believed mobile communication networks have enabled more capacity to collect data and increasing frequency of communication than previously possible in a project

In addition, 2.9% of the respondents rated that they strongly disagreed that mobile communication networks have played a huge role in collecting remote mobile network data by community members and other stakeholders involved in a project. Those respondents who indicated that disagreed with 14.7%, those who indicated that they were neutral 17.6%, those who agreed with 30.9% and those who strongly agreed 33.8%. It can be deduced that most of the respondents that is 64.7% rated that mobile communication networks have played a huge role in collecting remote mobile network data by community members and other stakeholders involved in a project.

In addition, those respondents who indicated strongly disagreed, disagreed, neutral, agreed and strongly agreed that mobile communications networks assist in communicating different and varying data types for instance images, videos and geographical information accounting for 5.9%, 4.4%, 26.5%, 30.9% and 32.4% respectively. 64.7% of the respondents who constituted the majority indicated that mobile communications networks assist in communicating different and varying data types for instance images, videos and geographical information.

Also, 4.4% of the respondents rated strongly disagreed that mobile communication networks are reducing cost of communication for projects hence assisting project performance. The rest of the respondents indicated that they disagreed (16.2%), those who were neutral (19.1%), those who agreed (26.5%) and those who strongly agreed (33.8%). It can be deduced 60.3% who formed many of the respondents indicated that mobile communication networks are reducing cost of communication for projects hence assisting project performance.

Further, 1.5% of the respondents indicated that mobile communication networks are reducing the rate of errors in communication by providing varying ways of communicating. The rest of the respondents indicated that the disagreed accounting for 4.4%, those who were neutral with 14.7%, those who indicated agreed accounting for 36.7% and those who strongly agreed with 42.6%. Majority of the respondents indicated that mobile communication networks are reducing the rate of errors in communication by providing varying ways of communicating with 79.3%. In my opinion, NGOs should use Mobile communication Networks in their projects.

4.4 Influence of Information Databases on Projects Performance

The study sought to determine whether there was influence of Information Databases on project performance. The analysis was based on the 5-point Likert scale of 5 – strongly agree, 4 – agree, 3 – neutral, 2 – disagree and 1 – strongly disagree. The results were indicated in the table 4.5.

Table 4.5 Influence of Information Databases on Projects Performance

	Strongly Agree%	Agree%	Neutral %	Disagree %	StronglyDisagree%
Information databases focuses on enhancing the participation information storage and quick retrieval	32.4	22.1	20.6	16.2	8.8
Information databases ICT are being used to increase information retrieval though out the project cycle from planning, through design and implementation	35.3	30.9	16.1	13.2	4.4
Information databases integrated in project processes help stakeholders access information, markets, healthcare, financial documents.	29.4	26.5	23.5	19.1	1.5
Information databases enabling generation of backups and these backups can be stored for prevent project data loss of the organization.	45.6	20.6	19.1	8.8	5.9
Information databases assist on project reporting activities, visualization of data for course correction and resource allocation.	45.6	29.4	10.3	5.9	8.8

Source: The Researcher

Table indicates that 8.8% of the respondents indicated strongly disagreed that information databases focuses on enhancing the participation information storage and quick retrieval. The rest of respondents disagreed with 16.2%, those who were neutral with 20.6%, those who agreed with 22.1% and those who strongly agreed with 32.4%. Majority of the respondents rated that information databases focuses on enhancing the participation information storage and quick retrieval with 54.5%.

Further, 4.4% of the respondents indicated strongly disagreed that information databases ICT are being used to increase information retrieval though out the project cycle from planning, through design and implementation. The rest of respondents disagreed with

13.2%, those who were neutral with 16.1%, those who agreed with 30.9% and those who strongly agreed with 35.3%. Majority of the respondents rated that information databases ICT are being used to increase information retrieval though out the project cycle from planning, through design and implementation with 66.2%.

Moreover, 1.5% of the respondents indicated strongly disagreed that Information databases integrated in project processes help stakeholders access information, markets, healthcare, financial documents. The rest of respondents disagreed with 19.1%, those who were neutral with 23.5%, those who agreed with 26.5% and those who strongly agreed with 29.4%. Majority of the respondents rated that Information databases integrated in project processes help stakeholders access information, markets, healthcare, financial documents with 55.9%.

In addition, 5.9% of the respondents indicated strongly disagreed that information databases enabling generation of backups and these backups can be stored for prevent project data loss of the organization. The rest of respondents disagreed with 8.8%, those who were neutral with 19.1%, those who agreed with 20.6% and those who strongly agreed with 45.6%. Majority of the respondents rated that information databases enabling generation of backups and these backups can be stored for prevent project data loss of the organization with 66.2%.

Finally, 8.8% of the respondents indicated strongly disagreed that information databases assist on project reporting activities, visualization of data for course correction and resource allocation. The rest of respondents disagreed with 5.9%, those who were neutral with 10.3%, those who agreed with 29.4% and those who strongly agreed with 45.6%. Majority of the respondents rated that information databases assist on project reporting activities,

visualization of data for course correction and resource allocation with 75.0%. In my opinion, NGOs should use Information Databases in their projects.

4.5 Project Performance

The study sought to determine what characterizes project performance. The analysis was based on the 5-point Likert scale of 5 – strongly agree, 4 – agree, 3 – neutral, 2 – disagree and 1 – strongly disagree. The results were indicated in the table 4.6.

Table 4.6 Influence of Project Performance

	StronglyAgree%	Agree%	Neutral %	Disagree %	StronglyDisagree%
Well performing project is one that stays within the scope	48.5	20.6	19.1	10.3	1.5
A project that delivers what was prior agreed upon and meets stakeholders' interests is considered as a performing project.	42.6	25.0	22.1	1.5	2.9
Technological innovations help manage project risks and hence increase the probability of a project performing well	44.1	25.0	14.7	13.2	2.9
Quality of the deliverables from the organizations projects is a key determinate of the projects performance which technological innovations supports	48.5	19.1	20.6	7.4	4.4
The organization aims to have projects stay within budgets and technological innovations supports this.	42.6	25.0	22.1	4.4	5.9

Source: The Researcher

Table 4.6 indicates that those respondents who indicated that they strongly disagreed that a well performing project is one that stays within the scope accounting for 1.5%. Those indicated that they disagreed with 10.3%, those who were neutral represented by 19.1%, those who agreed accounting for 20.6% and those who strongly agreed accounting for

48.5%. It can be deduced that majority of the respondents indicated that well performing project is one that stays within the scope with 69.1%.

Also, those respondents who indicated that they strongly disagreed that a project that delivers what was prior agreed upon and meets stakeholders' interests is considered as a performing project accounting for 2.9%. Those indicated that they disagreed with 1.5%, those who were neutral represented by 22.1%, those who agreed accounting for 25.0% and those who strongly agreed accounting for 42.6%. It can be deduced that majority of the respondents indicated that a project that delivers what was prior agreed upon and meets stakeholders' interests is considered as a performing project with 67.6%.

In addition, those respondents who indicated that they strongly disagreed that technological innovations help manage project risks and hence increase the probability of a project performing well accounting for 2.9%. Those indicated that they disagreed with 13.2%, those who were neutral represented by 14.7%, those who agreed accounting for 25.0% and those who strongly agreed accounting for 44.1%. It can be deduced that majority of the respondents indicated that technological innovations help manage project risks and hence increase the probability of a project performing well with 69.1%.

Moreover, those respondents who indicated that they strongly disagreed that quality of the deliverables from the organizations projects is a key determinate of the projects performance which technological innovations supports accounting for 4.4%. Those indicated that they disagreed with 7.4%, those who were neutral represented by 20.6%, those who agreed accounting for 19.1% and those who strongly agreed accounting for 48.5%. It can be deduced that majority of the respondents indicated that well performing project is one that stays within the scope with 67.6%.

Finally, those respondents who indicated that they strongly disagreed that the organization aims to have projects stay within budgets and technological innovations supports accounting for 5.9%. Those indicated that they disagreed with 4.4%, those who were neutral represented by 22.1%, those who agreed accounting for 25.0% and those who strongly agreed accounting for 42.6%. It can be deduced that majority of the respondents indicated that the organization aims to have projects stay within budgets and technological innovations supports with 67.2%. In my opinion, performing projects are ones that have quality deliverables, are within the scope and meet stakeholders' interests.

4.6 Correlations of the Variables

Pearson's correlation coefficient was used in this study which is the test statistics that measures the statistical relationship, or association, between two continuous variables. It is known as the best method of measuring the association between variables of interest because it is based on the method of covariance. It gives information about the magnitude of the association, or correlation, as well as the direction of the relationship.

The Pearson correlation for the variable was determined to find out how they influenced project performance. The variable of project management software influences project performance, mobile communication networks influence project performance, information databases influence project performance and project performance were determined and indicated in table 4.7.

Table 4.7 Correlations of the Variables

		Project management software	Mobile communication networks	Information Database	Project Performance
Project management software	Pearson Correlation	1			
	Sig. (2-tailed)				
Mobile communication networks	Pearson Correlation	.603**	1		
	Sig. (2-tailed)	.000			
Information Database	Pearson Correlation	.579*	.860**	1	
	Sig. (2-tailed)	.000	.000		
Project Performance	Pearson Correlation	.134	.266*	.385**	1
	Sig. (2-tailed)	.000	.000	.001	

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: The Researcher

Table 4.8 depicted that all the three variables had positive relationship with the project performance. First, the Pearson correlation of Project management software was 0.385 which indicates that it was significant as the p – value was less than 0.01 that is 0.00. The second variable of Mobile communication networks had also a positive Pearson correlation of 0.603 which significant at the 0.01. Finally, influence of Information Database had a positive Pearson correlation of 0.579 which significant at the 0.01.

4.7 Regression Analysis

Table 4.8 presents the summary of the regression analysis for three variables which were used to determine influence of technological innovations on projects performance in Non-governmental organizations.

Table 4.8 Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.714[a]	.672	.633	1.04314

a. Predictors: (Constant), Information Database, Project management software, mobile communication network

Source: The Researcher

Based on results of multiple linear regression on Table 4.8, the study found out the multiple correlation coefficient R was 0.714 indicating a relatively strong relationship between technological innovations and projects performance in Non-governmental organizations. The R Square was 0.672 indicating of variation and confirmed by the adjusted R squared. From the ANOVA statistics in Table 4.9, the processed data indicated the population parameters were significance at level of 0.000 ($p \leq 0.05$) which showed the data was ideal for making conclusions on the population parameters as the value of significance (p-value) was less than five percent. The F-statistic of 4.421 showed the overall significance of the plane; its p-value ($p<0.05$) showed that the model was statistical significance to make inference on technological innovations on projects performance in Non-governmental organizations. This explains the observations that we got from the model.

Table 4.9 Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	14.431	3	4.810	4.421	.000[b]
	Residual	69.641	64	1.088		
	Total	84.072	67			

a. Dependent Variable: Projects Performance

b. Predictors: (Constant), Information Database, Project management software, mobile communication network

Source: The Researcher

Table 4.10 shows the coefficients of all independent variables. It revealed when Information Database, Project management software and mobile communication network were at a constant zero, project performance in Non-governmental organizations would stand at 2.090. The finding suggested that project management software, mobile communication networks and information databases influence projects performance in Non-governmental organizations and hence statistical significance since all the (p-values) were less than five percent.

Table 4.10 Coefficients of Variables

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.090	.561		3.725	.000
Project management software	.657	.224	.101	.700	.000
Mobile communication network	.604	.329	.213	.923	.000
Information Database	.910	.327	.627	2.779	.000

a. Dependent Variable: Performance

Source: The Researcher

The regression model was to determine the relationships between the variables which were under study. The regression analysis was done using the regression model below:

$$= \quad +11+22+33+$$

Where; y = Project Performance of Organizations, x_1 = Influence of project management software, x_2 = Influence of mobile communication networks, x_3 = Influence of information databases and e = error term.

$$= 2.090 + 0.657\ 1 + 0.604\ 2 + 0.910\ 3$$

CHAPTER FIVE: SUMMARY OF FINDINGS, DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary of the findings, provides the conclusions and recommendations of the study based on the objectives of the study. The main objective of this study was to determine influence of technological innovations on projects performance in Non-governmental organizations.

5.2 Summary of Findings

From the findings of project management software, it can be summarized that majority of the respondents indicated that PMS makes it easier to collaborate between project managers, project team and stakeholders with 54.4%. It can also be summarized that majority of the respondents believed PMS for project planning automation different tasks are allocated to specific members and perennial reminders dispatched automatically represented by 64.7%. Most of the respondents rated that PMS are being utilized in helping to bring project schedules up to speed with the changing project environment and to address some of the real-world, methodological challenges with 55.9%. Further it can be summarized that majority of the respondents indicated that PMS is providing proper resource management helping avoid hitches that are brought about by missing tools and equipment with 64.7%. Finally, it can be summarized that 64.7% who were majority of the respondents indicated that each project comes with a cost which is included in a budget along with contingencies that is PMS plays a key role in in budget management.

On the mobile communication networks, it can be summarized that majority of the respondents 54.5% believed mobile communication networks have enabled more capacity to collect data and increasing frequency of communication than previously possible in a project.

It can be summarized that most of the respondents that is 64.7% rated that mobile communication networks have played a huge role in collecting remote mobile network data by community members and other stakeholders involved in a project. 64.7% of the respondents who constituted the majority indicated that mobile communications networks assist in communicating different and varying data types for instance images, videos and geographical information. It can be summarized 60.3% who formed most of the respondents indicated that mobile communication networks are reducing cost of communication for projects hence assisting project performance. Finally, majority of the respondents indicated that mobile communication networks are reducing the rate of errors in communication by providing varying ways of communicating with 79.3%.

On the influence of databases management majority of the respondents rated that information databases focuses on enhancing the participation information storage and quick retrieval with 54.5%. Majority of the respondents rated that information databases ICT are being used to increase information retrieval though out the project cycle from planning, through design and implementation with 66.2%. Majority of the respondents rated that Information databases integrated in project processes help stakeholders access information, markets, healthcare, financial documents with 55.9%. Majority of the respondents rated that information databases enabling generation of backups and these backups can be stored for prevent project data loss of the organization with 66.2%. Majority of the respondents rated that information databases assist on project reporting activities, visualization of data for course correction and resource allocation with 75.0%.

On performance of non-governmental organisations, it can be summarized that majority of the respondents indicated that well performing project is one that stays within the scope with

69.1%. It can be summarized that majority of the respondents indicated that a project that delivers what was prior agreed upon and meets stakeholders' interests is considered as a performing project with 67.6%. It can be summarized that majority of the respondents indicated that technological innovations help manage project risks and hence increase the probability of a project performing well with 69.1%. It can be summarized that majority of the respondents indicated that well performing project is one that delivers quality deliverables with 67.6%. It can be summarized that majority of the respondents indicated that the organization aims to have projects stay within budgets and technological innovations supports with 67.2%.

5.3 Discussion

The study has found that project management software influence performance of non-governmental organization projects. The concurs with the study of Stallman and Greene (2014) that found that software make it easier in collecting certain kind of data in a cheap way, there are potential that the technologies, rather than the project designs or data required, will influence the types of data that are gathered enhancing the project performance. In addition, the findings were reinforced by the findings of Trigg (2013) that when using innovation for big data depends on automating, that is quantitative data is likely to be gathered. Some software and procedures have been made in helping gather large-scale qualitative data, like videos tagging, stories and narratives, and using critical words in sorting and organizing responses that influencing the project performance of non-governmental organization. In my opinion project management software influence project performance of NGOs in Kenya.

The study found that PMS influence the performance of non-government organization. The findings of Chapelier and Shah (2013) agrees that project teams experiment with innovations in including the voices of participants/beneficiaries of development programs, to allow them weighing in on what success appear to be like and through collaboration thus, making it possible a more realistic in evaluating of whether success has been achieved in projects. In addition, the study of Boyera and Alonso (2012) concured with the findings of the study that collecting a wider perspective from a broad network in learning to experiment through outcome testing, set up and learn from lessons and have the ability in capturing the value of both successes and failures have been identified as vital elements of organizations with strong capacities to innovate.

The study found that mobile communication networks influence the project performance of non-governmental organizations. This concurs with the study of Letouzé (2014) that the use of innovations on the growing capacity to collect data and increasing frequency of communication relating to people's actions and behaviors prompting efforts in harnessing data used in predicting and tracking behaviors and planning interventions in a speedier manner than previously possible. In the past, by the time a full-scale diagnosis of a challenges was done it becomes late for effective response or the data becomes outdated. Further, the findings of the study concur with the study of Yu et al. (2009) that mobile data collection is most known use of ICT in project processes. In addition, the study found that it is free from errors and data entry, validation and cleaning can be done to enhance data collection process. In support, Boyera and Alonso 2012) indicated that data collected from mobile phone from their study in India that project managers found it is to be effective hence, influence project performance.

The findings of the study also concur with a study conducted in Vietnam on data gathering tool in monitoring forest management with the adopting of remote sensor monitoring of forest disturbances. It found that between fourteen (14) and thirty-six (36) percent of the events identified through local community people were not detected by remote sensors and that, in some cases, remote sensors indicated a delay of 1 to 2 years in events capturing. The role of remote mobile data gathered by community members was highlighted as important to ongoing forest managing and monitoring (Pratihast et al., 2012). Another, study done in Kenya utilizing mobile in Busara center for Behavioral Economics, a laboratory research in Nairobi, used Frontlines SMS to sending bulk text messages to participants/clients who signed for participating in research to remind them of their appointments. instead of making 150 to 200 individual/people calls a day, a process that usually taking two field officers a full day in completing, with one field officer requiring only 30 minutes to sending out the initial invitation to participants as well as a reminder closer to the date (Kuruvilla, 2013). Demombynes et al. (2013) found that collecting data by mobile phones has given to survey participants was potential approach. It was tested in 2011 as portion of an experimental phone surveying project done by the World Bank in Southern Sudan. In this pilot, 1,000 households/people in ten (10) state capitals of Southern Sudan were issued mobile phones. In my opinion mobile communication networks influence project performance of NGOs in Kenya.

The study has found that information databases influence the performance of non-governmental projects. This is echoed by the study of Kumar (2002) that projects use reconstructing baseline data under common projects' scenarios, it is usually the case that no baseline data was gathered, to make it difficult in applying pre-test-post-test project

designs. The tools and techniques used are review secondary data available, asking respondents in recalling the circumstances at the time the project began, conducting vital informant interviews, to hold focus groups and use participatory group consultation methods. There is a great need for storage of all this data and applications providing ability of storage of these data types is important. Numeric, alphabetic, audio and videos files need a way to be stored and technological innovations are providing different ways of doing this. In my opinion mobile communication networks influence project performance of NGOs in Kenya.

In addition, this study has found that information databases are being used to increase information retrieval though out the project cycles from planning, through design and implementing, evaluating and the dissemination of project knowledge. Much data is collected and stored throughout the whole project. This data is supposed to be easily mined and presented to map out patterns of the project. Data retrieval is vital to held stay within the timelines of the project. This is further facilitated if the databases are online and accessible by all project members. Latest information databases are coming up with the latest ways of backup. This include online and offline backups. Backups secure against information loss of a project and hence ensure project performance.

5.4 Conclusion

The study concludes that on project management software influence project performance of non-government organization, PMS makes it easier to collaborate between project managers, project team and stakeholders, using PMS for project planning automation, meaning different tasks are allocated to specific members and perennial reminders dispatched automatically, PMS are being utilized in helping to bring project schedules up to speed with the changing

project environment and to address some of the real-world, methodological challenges, PMS is providing proper resource management helping avoid hitches that are brought about by missing tools and equipment and each project comes with a cost which is included in a budget along with contingencies. PMS plays a key role in in budget management.

The study further concludes that mobile communication networks influence project performance of non-government organization; mobile communication networks have enabled more capacity to collect data and increasing frequency of communication than previously possible in a project; mobile communication networks have played a huge role in collecting remote mobile network data by community members and other stakeholders involved in a project; mobile communications networks assist in communicating different and varying data types. Like images, videos and geographical information; mobile communication networks are reducing cost of communication for projects hence assisting project performance and; mobile communication networks are reducing the rate of errors in communication by providing varying ways of communicating.

The study concludes that information databases influence project performance of non-government organization; Information databases focuses on enhancing the participation information storage and quick retrieval; Information databases ICT are being used to increase information retrieval though out the project cycle from planning, through design and implementation; Information databases integrated in project processes help stakeholders access information, markets, healthcare, financial documents; information databases enabling generation of backups and these backups can be stored for prevent project data loss of the organization and; information databases assist on project reporting activities, visualization of data for course correction and resource allocation.

The study also concludes that technological innovation influence the performance of non-government organization projects; Well performing project is one that stays within the scope; A project that delivers what was prior agreed upon and meets stakeholders' interests is considered as a performing project; Technological innovations help manage project risks and hence increase the probability of a project performing well; Quality of the deliverables from the organizations projects is a key determinate of the projects performance which technological innovations supports and; The organization aims to have projects stay within budgets and technological innovations supports this.

5.5 Recommendations

The study recommends that the non-government organizational should embrace use of project management software so that it to ensure easier collaboration between project managers, project team and stakeholders, automate project planning so as different tasks are allocated to specific members and perennial reminders dispatched automatically

Also, the study recommends that the NGOs improve on the mobile communication networks so that they can enabled more capacity to collect data and increasing frequency of communication than previously possible in a project.

Finally, the NGOs should use information databases to enhance the participation information storage and quick retrieval, integrate project processes to assist stakeholders access information, markets, healthcare, financial documents and enable generation of backups and these backups can be stored for prevent project data loss of the organization.

5.6 Areas for Further Study

Further research is necessary as the findings were based on a relatively small population that may have influenced the nature of results that were obtained. There is need to expand on the population size and carry out similar research in other non-governmental organizations.

The analysis that was used is always not enough to draw conclusions on a phenomenon, and to provide adequate information that can be used for policy development. Further research focusing on influence of technological innovations on projects performance in governmental organizations is also recommended.

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APPENDICES

APPENDIX I: INTRODUCTION LETTER

Dear,

Prof/Dr./Mr./Mrs./Ms……...

I'm Robert Kibugu, a student at the Africa Nazarene University in pursuit of a Master of Arts in Monitoring and Evaluation. As a partial fulfilment of the requirements to my degree, I'm working on a project research work on influence of technological innovations on project performance on Non-Governmental Organisations and I have chosen KANCO as the organisation in this case.

I would like to confirm to you that the information you provide will be used for the research work only and will be treated with the highest level of confidentiality. It will be accessed only by myself and the research team assistants that maybe assisting me as I work on the project. Any pressing queries and comments regarding the research can be directed to me through my mobile number: 0722-428785 and email address: kibugu@gmail.com.

The questionnaire is estimated to take about 20 minutes to fill it. It is divided into five parts: Demographic background; Influence of Project Management Software; Influence of Mobile Communication Networks; Influence of Information Databases and Project Performance. On completion of the survey you may request a report from me as a show of appreciation.

Thank you for your time and consideration in filling in the questionnaire.

Robert Kibugu

APPENDIX II: RESEARCH QUESTIONNAIRE

I am a student who pursuing a master's degree in Africa Nazarene University carrying out a research on "influence of technological innovations on projects performance in Non-governmental organizations: Case of KANCO. Please fill the questionnaire in the spaces provided.

Your participation is highly appreciated.

Part A: Demographic Background

1. What is your gender?

2. Please indicate your position in the organization in the space provided?

   Project Manager [ ] Project Member [ ] Office Member [ ]

3. Indicate the number of years you have worked for the organization?

   Above 10 Years[ ] Between 6-10 Years[ ] Between 1-5 Years[ ] Below 1 Year[ ]

4. Your level of education

   Certificate [ ] Diploma[ ] Undergraduate [ ] Master Degree [ ] PhD Level [ ]

Part B: Influence of Project Management Software

5. Rate whether you agree whether project management software influences project performance? Base your answer on a five-point Likert scale: 5) Strong Agree 4) Agree 3) Neutral, 2) Disagree and 1) Strongly Disagree

	5	4	3	2	1
i) PMS makes it easier to collaborate between project managers, project team and stakeholders					
ii) When using PMS for project planning automation, meaning different tasks are allocated to specific members and perennial reminders dispatched automatically					
iii) PMS are being utilized in helping to bring project schedules up to speed with the changing project environment and to address some of the real-world, methodological challenges					
iv) PMS is providing proper resource management helping avoid hitches that are brought about by missing tools and equipment.					
v) Each project comes with a cost which is included in a budget along with contingencies. PMS plays a key role in in budget management,					

Part C: Influence of Mobile Communication Networks

6. Rate whether you agree that mobile communication networks influence project performance? Base your answer on a five-point Likert scale: 5) Strong Agree 4) Agree 3) Neutral, 2) Disagree and 1) Strongly Disagree

	5	4	3	2	1
i.) Mobile communication networks have enabled more capacity to collect data and increasing frequency of communication than previously possible in a project.					
ii.) Mobile communication networks have played a huge role in collecting remote mobile network data by community members and other stakeholders involved in a project.					
iii.)Mobile communications networks assist in communicating different and varying data types. Like images, videos and geographical information.					
iv.) Mobile communication networks are reducing cost of communication for projects hence assisting project performance					
v.) Mobile communication networks are reducing the rate of errors in communication by providing varying ways of communicating.					

Part D: Influence of Information Databases

7. Rate whether you agree that information databases influence project performance? Base your answer on a five-point Likert scale: 5) Strong Agree 4) Agree 3) Neutral, 2) Disagree and 1) Strongly Disagree

	5	4	3	2	1
i.) Information databases focuses on enhancing the participation information storage and quick retrieval					
ii.) Information databases ICT are being used to increase information retrieval though out the project cycle from planning, through design and implementation					
iii.)Information databases integrated in project processes help stakeholders access information, markets, healthcare, financial documents.					

iv.) Information databases enabling generation of backups and these backups can be stored for prevent project data loss of the organization.					
v.) Information databases assist on project reporting activities, visualization of data for course correction and resource allocation.					

Part E: Project Performance

8. Rate whether you agree that technological innovations influence project performance? Base your answer on a five-point Likert scale: 5) Strong Agree 4) Agree 3) Neutral, 2) Disagree and 1) Strongly Disagree

	5	4	3	2	1
i.) Well performing project is one that stays within the scope					
ii.) A project that delivers what was prior agreed upon and meets stakeholders' interests is considered as a performing project.					
iii.)Technological innovations help manage project risks and hence increase the probability of a project performing well					
iv.) Quality of the deliverables from the organizations projects is a key determinate of the projects performance which technological innovations supports					
v.) The organization aims to have projects stay within budgets and technological innovations supports this.					

……..**Thank you for your participation**……..

APPENDIX III: ANU LETTER OF RESEARCH AUTHORIZATION

AFRICA NAZARENE
UNIVERSITY

3rd April 2019

E-mail: researchwriting.mba.anu@gmail.com

Tel. 0202711213

Our Ref: 16S03EMME001

The Director.
National Commission for Science,
Technology and Innovation (NACOSTI),
P. O. Box 30623, 00100
Nairobi. Kenya

Dear Sir/Madam:

RE: RESEARCH AUTHORIZATION FOR: MR. ROBERT MARK KIBUGU

Mr. Kibugu is a postgraduate student of Africa Nazarene University in the Master of Monitoring and Evaluation (M&E) program.

In order to complete his program, Mr. Kibugu is conducting a research entitled: **"Influence of Technological Innovations on Project Performance in NGOs in Kenya"**

Any assistance offered to him will be highly appreciated.

Yours Faithfully,

AFRICA NAZARENE UNIVERSITY
PRINCIPAL, NAIROBI CBD CAMPUS
03 APR 2019
Sign .....
P. O. Box 53867 - 00200, NAIROBI

PROF. ORPHA ONG'ITI,
PRINCIPAL: NAIROBI CBD CAMPUS.

APPENDIX IV: NACOSTI LETTER OF RESEARCH AUTHORIZATION

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION

Telephone:+254-20-2213471, 2241349,3310571,2219420
Fax:+254-20-318245,318249
Email: dg@nacosti.go.ke
Website : www.nacosti.go.ke
When replying please quote

NACOSTI, Upper Kabete
Off Waiyaki Way
P.O. Box 30623-00100
NAIROBI-KENYA

Ref: No. **NACOSTI/P/19/21260/29599**

Date: **30th April, 2019**

Robert Mark Kibugu
Africa Nazarene University
P.O. Box 53067-00200
NAIROBI.

RE: RESEARCH AUTHORIZATION

Following your application for authority to carry out research on ***"Influence of technological innovations on projects performance of Non-Governmental Organisations in Kenya: A case of Kenya Aids Non-Governmental Organisations Consortium,"*** I am pleased to inform you that you have been authorized to undertake research in **Nairobi County** for the period ending **25th April, 2020.**

You are advised to report to **the County Commissioner and the County Director of Education, Nairobi County** before embarking on the research project.

Kindly note that, as an applicant who has been licensed under the Science, Technology and Innovation Act, 2013 to conduct research in Kenya, you shall deposit **a copy** of the final research report to the Commission within **one year** of completion. The soft copy of the same should be submitted through the Online Research Information System.

GODFREY P. KALERWA MSc., MBA, MKIM
FOR: DIRECTOR-GENERAL/CEO

Copy to:

The County Commissioner
Nairobi County.

The County Director of Education
Nairobi County.

APPENDIX: NACOSTI LETTER PERMIT

THIS IS TO CERTIFY THAT:
MR. ROBERT MARK KIBUGU
of AFRICA NAZARENE UNIVERISTY, 0-100 Nairobi,has been permitted to conduct research in *Nairobi County*

on the topic: *INFLUENCE OF TECHNOLOGICAL INNOVATIONS ON PROJECTS PERFORMANCE OF NON-GOVERNMENTAL ORGANISATIONS IN KENYA: A CASE OF KENYA AIDS NON-GOVERNMENTAL ORGANISATIONS CONSORTIUM*

for the period ending:
25th April,2020

Permit No : NACOSTI/P/19/21260/29599
Date Of Issue : 30th April,2019
Fee Recieved :Ksh 1000

.....
Applicant's Signature

.....
Director General
National Commission for Science, Technology & Innovation